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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/911,993 | 07/24/2001 | David M. Vande Berg | 01,241 | 5138 |
| 24030 | 7590 | 02/28/2006 | EXAMINER | |
| SHUGHART THOMSON & KILROY, PC 120 WEST 12TH STREET KANSAS CITY, MO 64105 | | | | LE, UYEN CHAU N |
| | | ART UNIT | | PAPER NUMBER |
| | | | | 2876 |

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|----------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/911,993 | VANDE BERG, DAVID M. | |
| | Examiner | Art Unit | |
| | Uyen-Chau N. Le | 2876 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 05 December 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 13-24 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) _____ is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>07/24/2001</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Prelim. Amdt/Amendment

1. Receipt is acknowledged of the Amendment filed 05 December 2005.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Black et al (US 6,494,305) in view of Chapman et al (US 3,651,704) and Blankenship et al (US 6,267,291).

Re claims 13 and 15: Black et al discloses a mounting apparatus 20 for attaching a transponder 40, which serves as an RF tag, to a conveyor trolley 22 having a wheel 36 with a hub, an outer rim, wherein a web connecting the hub and the outer rim having a thickness equal to the thickness of the outer rim (fig.

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3), the mounting apparatus 20 comprising a carcass-tracking apparatus 30, which serves as a block of material, which the transponder 40/RF tag is secured; wherein the block 30 is securable to the trolley 22 (figs. 1-3; col. 3, lines 1-34) by screws/threaded fasteners through apertures/threaded fastener receivers [51, 53]; wherein the RF tag/transponder 40 is at least partially imbedded in the block/housing 36 (figs. 4-13; col. 3, lines 35+). The conveyor trolley 22 comprising a metallic body 34, which serves as a strap, having a first and second legs connected by an arch (fig. 3), wherein the wheel 36 is rotatably mounted on an axle between the first and second legs of the strap (fig. 3); a hook 24 extending downward from the fist leg for suspending a load therefrom (figs. 2-3; col. 3, lines 1+). The conveyor trolley 22 further having a wheel 36 for engaging a track 28 (fig. 1).

Black et al is silent with respect to a wheel having a hub, an outer rim, and a web connecting the outer rim to the hub, the web having a thickness, which is less than the thickness of the outer rim such that a first annular recess is formed between the hub and the outer rim.

Chapman et al teaches a pulley wheel 20 having a hub 22, a web 24, an outer rim 26, the web 24 having a thickness, which is less than the thickness of the outer rim 26 such that a first

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annular recess is formed between the hub and the outer rim (figs. 1-3, col. 2, lines 6-13).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate a recess formed between the hub and the outer rim of Chapman et al into the conveyor trolley as taught by Black et al in order to provide Black et al with a lighter weight system (i.e., weight reduced due to the web thickness), thus providing an easier handling and conveying system, and therefore an obvious expedient.

Black et al as modified by Chapman et al has been discussed above and further discloses a transponder/RF tag 40 is secured to a block 30, which is mounted directly on the trolley 22 (figs. 1-3; col. 3, lines 5-12), but is silent with respect to the block/RF tag is mounted in the annular recess formed between the hub and rim (i.e., directly on the wheel).

Blankenship et al teaches a RFID tag 138 is mounted directly on a surface 134 in the area of between the hub and the rim of a wheel 132A (figs. 10-11; col. 10, lines 8-17).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to rearrange the location of the block having the RF tag of Black et al/Chapman et al from the trolley to the surface/recess between the hub and

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rim as taught by Blankenship et al in order to provide Black et al/Chapman et al with a more secure system wherein the block is mounted within the recess between the hub and the outer rim of the wheel instead of exposing on the outer surface of the trolley, and thus preventing separation of the tag from the system during conveying and handling. Furthermore, such modification would be well within the level of ordinary skill in the art at the time the invention was made because employing the RF tag directly on the wheel instead of on the trolley is simply a rearrangement of parts, and therefore an obvious expedient.

4. Claims 14 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Black et al as modified by Chapman et al and Blankenship et al as applied to claim 13 above, and further in view of Fleischer (US 4,697,278). The teachings of Black et al as modified by Chapman et al and Blankenship et al have been discussed above.

Re claims 14 and 20-22: Black et al/Chapman et al/Blankenship et al has been discussed above but is silent with respect to having the RF tag imbedded in a block of material shaped to conform to a portion of the annual recess, which formed between the hub and the rim.

Fleischer teaches an integrated circuit 46 is mounted on a circuit board 42, which serves as a block material, shaped to

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fit in the area between the hub and the rim (fig. 1; col. 4, lines 1-33).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the block material/circuit board of Fleischer into the system as taught by Black et al/Chapman et al/Blankenship et al in order to provide Black et al/Chapman et al/Blankenship et al with an alternative means for securing the tag to the wheel that prevent the tag from separated from the wheel during transporting.

Allowable Subject Matter

5. Claims 17-19 and 23-24 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of records to Black et al, Chapman et al, Blankenship et al, Röhrig and all other cited references, taken alone or in combination, fails to teach or fairly suggest the specific structure or the method of attaching an RF tag to a conveyor trolley having a wheel with a hub, an outer rim, and a web connecting the hub to the outer rim, the web comprising a plurality of spokes with openings formed there between comprising, among other things, the first block is mounted in the first recess by a clamping member seated in the second

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recess and secured to the first block by a fastener such that the first block and the clamping member abut opposite sides of at least one of the spokes with the fastener extending through the one opening (claim 17); or placing a clamping member in the second recess opposite the block; connecting the clamping member to the block with a threaded fastener extending through one of the openings in the web; tightening the threaded fastener to draw the block and the clamping member together and against the spokes (claim 23) as set forth in the claims combination.

7. Claim 16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed 05 December 2005 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or

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in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the primary reference to Black et al discloses a mounting apparatus 20 for attaching a transponder 40, which serves as an RF tag, to a conveyor trolley 22 having a wheel 36 with a hub, an outer rim wherein a web connecting the hub and the outer rim having a thickness equal to the thickness of the outer rim (fig. 3), the mounting apparatus 20 comprising a carcass-tracking apparatus 30, which serves as a block of material, which the transponder 40/RF tag is secured; wherein the block 30 is securable to the trolley 22 (figs. 1-3; col. 3, lines 1-34). Black et al is silent with respect to having a web connecting the outer rim to the hub, the web having a thickness, which is less than the thickness of the outer rim such that a first annular recess is formed between the hub and the outer rim. The secondary reference to Chapman et al teaches the web 24 having a thickness, which is less than the thickness of the outer rim 26 such that a first annular recess is formed between the hub and the outer rim (figs. 1-3, col. 2, lines 6-13). It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the thin web of Chapman et al into the trolley wheel of Black et al to

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reduce the wheel weight, which would provide better performance in conveying process. Black et al as modified by Chapman et al is silent with respect to having the RF tag mounted in the recess/web area of the wheel. The third reference to Blankenship teaches a RF tag 138 mounted in the web/recess area (i.e., the area between the hub and the rim of the wheel) (fig. 11; col. 10, lines 8-28). Accordingly, the claimed limitation, given the broadest reasonable interpretation, Black et al as modified by Chapman and Blankenship meets the claimed invention (see the rejection above).

9. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

10. In response to the Applicant's argument to "... there is nothing in Blankenship ('291) or in any other reference cited ... suggests mounting an RFID tag in an annular recess of a wheel...

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There are no teaching in any of the Examiner's references to mount an RFID tag in any recess..." (p. 6, lines 23+), the Examiner respectfully request the Applicant to further review the above rejection and in the office action mailed 29 June 2005 where Chapman et al was used to complete the deficiency of Black et al with respect to an annual recess, which formed in the area between the hub and the rim of the wheel. Black et al as modified by Chapman et al is silent with respect to mounting the RF tag on the surface within the area between the hub and the rim of the wheel/the annual recess. Blankenship teaches a RF tag 138 mounted on the surface within the area between the hub and the rim of the wheel (fig. 11; col. 10, lines 8-28). Accordingly, the claimed limitation, given the broadest reasonable interpretation, Black et al as modified by Chapman and Blankenship meets the claimed invention (see the rejection above).

For the reasons stated above, the Examiner believes that a proper prima-facie case of obviousness has been established. Therefore, the Examiner has made this Office Action final.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uyen-Chau N. Le whose telephone number is 571-272-2397. The examiner can normally be reached on First Monday 5:30AM-1:30PM and Tues-Fri 5:30AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Uyen-Chau N. Le
Primary Examiner
Art Unit 2876

February 21, 2006